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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/676,751 | 10/01/2003 | Kevin J. Petit | 085056120027 | 7935 |

24325 7590 08/24/2005

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EXAMINER

HOGAN, JAMES SEAN

ART UNIT PAPER NUMBER

3752

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/676,751 | Applicant(s) PETIT, KEVIN J. | |
| | Examiner James S. Hogan | Art Unit 3752 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments filed June 27, 2005 about the validity of the grounds of rejection found in Col. 1, lines 45-50 of U.S. Patent 2,054,964 have been fully considered but they are not persuasive. The Examiner agrees that the concept of the plates being "secured to this sleeve in any desired and well known manner" is, as the Applicant pointed out, directed to how the plates are secured, and does not allude to their positioning. However, lines 40-44 disclose the limitation that the "plates may be secured together *and associated* with the throats in any desired manner". The example of the plates being secured like the interlocking partitions of a box clearly teaches one of having ordinary skill in the art to secure plates at any offset angle.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-47 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,054,964 to Barker in view of U.S. Patent No. 2,627,439 to Wornall.

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Regarding claims 1, 2, 15, 20-24, 28, 32, 37, 40 and 44, Barker ('864) teaches a stream shaper (see Figures 1-3) having a pair of vane groups (20 and 30). Barker also teaches the vane groups can be "secured together and associated with the throats in any desired manner" (Col 2, line 40-44), which would include arranging the vanes so that they are circumferentially offset from each other, as regarded in claim 24, 25, 28, 29, 30, 37 and 40. Barker does not teach vane groups having a plurality of circumferentially spaced axially extending vanes. Wornall ('439) teaches (see Figure 3) a nozzle with a stream "straightener" (16) having a plurality of circumferentially spaced axially extending vanes. As per claim 2 and 41, the vanes of Wornall extend radially between inner (35) and outer (not numbered) cylindrical walls. As per claim 3, 16, 27, 31, and 38 the straightener of Wornall ('439) discloses an axially extending cylindrical passage (35). As per claim 4, 5, and 34 the straightener of Wornall ('439) discloses what would be an equal number of vanes if used to replace the vane groups of Barker, with Wornall ('439) disclosing 8 vanes. As per claim 6 15, 17, 26, 35 and 36, Barker teaches the vane groups spaced a distance apart (15) so that separated streams from the first vane group are reassembled before entering the second vane group. As per claim 8, as best that can be determined, the vanes of Barker ('864) have a smooth finish. As per claim 11, 19, 33, 39 and 43 the straightener of Wornall ('439) discloses what would be vanes groups having an equal axial length and equal size if used too replace the vane groups of Barker ('864). As per claim 14, as best as can be reasonably determined, the central cylindrical passage of Wornall is within twenty percent of the cross sectional area of each of the vane passages the Wornall device

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has. As per claim 40, the stream straightener of Barker ('864) does not teach a discharge pipe having threaded opposite end portions. The nozzle of Wornall shows threaded opposite end portions of a single set of vanes. It would have been obvious to one skilled in the art at the time the invention was made to have substituted the vane groups of Barker ('864) with the vane arrangement and threaded connections of Worall ('439) in order to provide a laminar flow to an outputted stream of fluid.

As for claim 7, 42, 46 and 47 it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the invention as a one piece construction, since it has been held that forming in one piece an article which was formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)

As for claim 9 and 10, Wornall clearly teaches a vane group positioned as an exit group, however it would have been obvious to one skilled in the art at the time the invention was made to have tapered or rounded the discharge ends, since it was held that a change in shape (vs. blunt ends) of the element involves only routine skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1966)

As for claim 13, it would have been obvious to one skilled in the art at the time the invention was made to have selected the range of 0.150-0.350 inches, since such a range clearly within the proportions shown by Barker ('864) that selection involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

Conclusion

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2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

U.S. Patent No. 4,546,920 to Torgersen, disclosing a sonic water jet

U.S. Patent No. 5,042,461 to Inoue et al., disclosing an ultrasonic operating instrument

U.S. Patent No. 4,176,769 to Cudby et al., disclosing a pour nozzle

U.S. Patent No. 2,744,738 to Hjulian, disclosing an aerator

U.S. Patent No. 3,486,700 to Bristow, disclosing a nozzle

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Hogan whose telephone number is (571) 272-4902. The examiner can normally be reached on Mon-Fri, 7:00a-4:00p EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSH
08/15/2005


David A. Scherbel
Supervisory Patent Examiner
Group 3700